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New on-the-move network backbone

By Amy Walker

The continued fielding of Warfighter Information Network-Tactical Increment 2, the backbone of the Army's new network capability set, enables commanders to take advantage of the improved situational awareness provided by a mobile adhoc network that reaches down to the company level for the first time.

"As I think about how we fought in 2005 and being able to look to 2012, it is tremendously forward in terms of how we can communicate with every Soldier," said COL Sam Whitehurst, commander of the 3rd Brigade Combat Team, 10th Mountain Division, one of two units currently being fielded with these advanced technologies.

"[In the past] I had to go through fixed locations to talk to other units on the battlefield. Now I can be on the move as a brigade commander and I can talk to every single company in my area."

Capability Set 13 is the first fully-integrated package of radios, satellite systems, software applications, Smartphone-like devices and other network components that provide connectivity from the stationary command post to the commander on-the-move to the dismounted Soldier.

WIN-T Increment 2 is the tactical communications network backbone that binds the capability set together.

"A major advantage in fielding disparate systems as an integrated package, as the Army is doing with CS 13, is that it provides a synchronized and integrated set of new capabilities to the units at one time, so the commanders will be able to take full advantage of the network," said COL Ed Swanson,



(U.S. Army photo by Amy Walker)

A Soldier from the 2nd Brigade, 1st Armored Division climbs into a Warfighter Information Network-Tactical Increment 2 Point of Presence vehicle during the Army's Network Integration Evaluation 13.1 at Fort Bliss, Texas in November 2012.

project manager for WIN-T. "These capabilities provide comprehensive, real-time information, faster than ever before across the full range of military operations."

The Army received the go-ahead to continue with limited production and fielding of WIN-T Increment 2 as a result of a Defense Acquisition Board review conducted in late September. The Army remains on schedule in its fielding timeline for WIN-T Increment 2 as part of CS 13, which began in October with two BCTs from the 10th Mountain Division, and will continue with follow-on CS 14 development to add additional capability to the force.

At the same time that it fields to CS 13 units, the Army will continue to work with the Office of the Secretary of Defense and the test community to aggressively address items identified during the Initial Operational Test &

Evaluation for WIN-T Increment 2, which was held in May as part of the Army's Network Integration Evaluation 12.2.

Going forward the Army will leverage NIE events for future WIN-T Increment 2 testing focused on specific areas to continuously improve the system. WIN-T Increment 1, formerly known as the "Joint Network Node - Network," began fielding in 2004 and provides Soldiers with high-speed, high-capacity voice, data and video communications down to battalion level units, at-the-quick-halt.

WIN-T Increment 2 provides Soldiers with a single, integrated and on-the-move network down to the company level. It further increases capability by introducing self-forming, self-healing network

(Continued on page 24)

(Continued from page 23)

ing radios and enhancing Network Operations.

"WIN-T Increment 2 enhances capability below the battalion level; we push high-capacity communications all the way down to the company level, so for the first time ever a company now has access into those Global Information Grid services on the SIPR side, much like those provided to higher echelons," said LTC Robert Collins, product manager for WIN-T Increment 2.

As part of the first CS 13 fieldings, 10 weeks of WIN-T Increment 2 New Equipment Training for 10th Mountain's 4th BCT at Fort Polk, La., and 3rd BCT at Fort Drum, N.Y., began in early October, with the WIN-T Increment 2 NET teams scheduled to train roughly 230 Soldiers. During the WIN-T Increment 2 NET, Soldiers are introduced to and trained on the actual WIN-T Increment 2 communications equipment they would be operating in theater, if and when they are called to deploy.

The training provides the Soldiers with the knowledge necessary to not only install, operate and maintain the WIN-T Increment 2 equipment in combat, but also the skill to manage the complex network.

Managing the many facets of the network is often a daunting task for a communications officer, but WIN-T Increment 2's suite of integrated monitoring tools makes the job easier. These NetOps tools give the S6 the capability to successfully support the mission requirements and the commander's intent on an improved common operating picture.

"We've made revolutionary progress with WIN-T Increment 2's NetOps," LTC Collins said.

"Much like operational commanders command and control their combat forces, they can now

plan and manage the network, implement information assurance protective postures, all from a remote location."

The WIN-T Increment 2 NET finishes with a crew drill training exercise that provides Soldiers with the practical experience of working as a team using realistic operational scenarios to bring up the Increment 2 network. As a part of the crew drills, Soldiers must conduct at-the-halt and on-the-move missions validating their understanding of the NET concepts and techniques.

"The Soldiers taking part in the NET are enthusiastic and the leadership is very supportive to make sure that this is a first-class training exercise for those units," LTC Collins said. "WIN-T Increment 2 serves as a cornerstone for the success of the capability set fielding series, so this training exercise is very critical."

Following training completion the equipment will be configured for operational use, new equipment fielding will be completed and then the unit will begin a series of events designed to prepare them for potential deployment. While it is early in the fielding and training process, 10th Mountain Division leaders said they can see

the operational value of the increased mobility and situational awareness delivered by WIN-T Increment 2 and CS 13.

For example, a commander on-the-move will now be able to quickly receive and act on information about an enemy's whereabouts, said COL Walter E. Piatt, deputy commanding general for support of 10th Mountain Division.

"Before messages would come down from a battalion [executive officer] to another fixed facility and by the time it would get passed to me I may have already hit an ambush," said Piatt. "Now that intelligence can be shared quicker. Now we know where we are, where reported enemy sightings are, so we can take the initiative and attack the attackers that were waiting in ambush for us. It's getting the information when you need it."

Amy Walker is a staff writer for Symbolic Systems, Inc. supporting the Army's Program Executive Office Command, Control and Communications-Tactical (PEO C3T); Project Manager Warfighter Information Network-Tactical (WIN-T) and MilTech Solutions. She graduated from The College of New Jersey, Ewing, N.J.

ACRONYM QuickScan

10th Mountain - 10th Mountain Division

BCT - Brigade Combat Team

CS - Capability Set

DAB - Defense Acquisition Board

IOT&E - Initial Operational Test and Evaluation

NetOps - Network Operations

NIE - Network Integration Evaluation

OEF - Operation Enduring Freedom

OIF - Operation Iraqi Freedom

PEO C3T - Program Executive Office for Command, Control and Communications - Tactical

SIPR - Secure Internet Protocol Router

WIN-T - Warfighter Information Network-Tactical

WSMR - White Sands Missile Range